

NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR306 Magnetic Starters

Nonreversing, Non-combination, Open, NEMA Type 1, 3R, 12, 4/4X
 NEMA Sizes 1-6 with Solid State Overload Relay
 600 Volts Maximum 50/60 Hertz

Check Speedi Configurator for product availability and premium through GE Fastrac Program.



CR306 Size 1 Motor Starter with Solid-State Overload Relay installed

Product Number Selection Instructions

1. 50 Hertz Starters

Pricing for 50-Hertz forms (at standard voltages) is the same as shown in table for 60 Hertz. Listed prices for 460-480 Volt also apply to 380-415 Volt, 50 Hertz. See page 1-6 for 380-415 Volt horsepower ratings.

2. Product Notes

Motor full-load current should not exceed continuous ampere rating of starter.

3. Note: Reversing, Two Speed, and Combination Starters are also available with Solid-State Overload Relays.

Contact nearest GE Energy Representative for more information.

4. Units are individually boxed and poly-packed six per carton as standard.

5. External reset not included on standard listed forms (NEMA Type 12).

6. For additional details on the Solid State Overload Relay, see pages 1-162 through 1-165.

Technical Features — Solid-State Overload

- 2:1 Adjustable full load amps with tactile feedback dial
- Selectable 10/20/30 protection class
- Ambient insensitive within the stated operating temperature range of -20° to +70°C
- Built-in thermal memory to prevent hot motor restarts
- Protection against complete phase current loss
- Manual reset (standard) and remote reset (optional) 24 VDC or 120 VAC
- Accuracy: ± 2%
- Repeatability: ± 2%
- Self-powered @ 50% of minimum current range
- Size: 1-6 (0.40A-540A, 600V, 50/60 Hz)
- Unbalance trip signal for PLC operation
- Manual trip
- Visual trip indication
- Standard isolated 1 NO and 1 NC aux. contact (A600, Q600)
- Built-in line/load straps
- Fits with existing 300-Line Starters
- Power factor correction terminals (sizes 1-4)
- DIN rail mountable sizes 1 & 2

Reference Publications

Instructions	Publication Number
NEMA Size	
00_0_1	GEH-5190
1-6	DEP-058
2	GEH-4774
3	GEH-4806
4	GEH-4807
5	GEH-4839
6	GEH-5198
7-9	GEH-5108

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CR306 Magnetic Starters

Section 1

Nonreversing, Non-combination, Open, NEMA Type 1, 3R, 12, 4/4X
 NEMA Sizes 1-6 with Solid State Overload Relay
 600 Volts Maximum 50/60 Hertz

Check Speedi Configurator for product availability and premium through GE Fastrac Program.

List price includes a holding interlock, pressure terminals for the line and load connections, plus a solid-state overload relay (manual reset). Standard isolated 1NO and 1NC auxiliary contact (A600, Q600).

Select current range from Full Load Current Selection Table. Insert letter (C, D, E, F, etc.) from table in Product Number to replace *.

Refer to Coil Table, page 1-8 for other available starter coils and suffixes (sizes 1-6).

CR306, Three-Phase Magnetic Starters

NEMA Size	Continuous Ampere Rating ¹	Voltage	Horsepower	Open Type		NEMA Type 1		NEMA Type 3R		NEMA Type 12 ²		NEMA Type 4/4X	
				Product Number	List Price	Product Number	List Price	Product Number	List Price	Product Number	List Price	Product Number	List Price
1	27	Separate Control — 115-120V		CX*002	\$261.00	CX*102	\$273.00	CX*602	\$345.00	CX*202 ¹	\$345.00	CX*402	\$489.00
1	27	200-208	7 1/2	CX*023	\$261.00	CX*123	\$273.00	CX*623	\$345.00	CX*223 ¹	\$345.00	CX*423	\$489.00
1	27	230-240	7 1/2	CX*003	\$261.00	CX*103 ²	\$273.00	CX*603	\$345.00	CX*203 ¹	\$345.00	CX*403	\$489.00
1	27	460-480	10	CX*004	\$261.00	CX*104	\$273.00	CX*604	\$345.00	CX*204 ¹	\$345.00	CX*404	\$489.00
1	27	575-600	10	CX*005	\$261.00	CX*105	\$273.00	CX*605	\$345.00	CX*205 ¹	\$345.00	CX*405	\$489.00
2	45	Separate Control — 115-120V		DX*002	\$453.00	DX*102	\$513.00	DX*602	\$645.00	DX*202 ¹	\$645.00	DX*402	\$945.00
2	45	200-208	10	DX*023	\$453.00	DX*123	\$513.00	DX*623	\$645.00	DX*223 ¹	\$645.00	DX*423	\$945.00
2	45	230-240	15	DX*003	\$453.00	DX*103	\$513.00	DX*603	\$645.00	DX*203 ¹	\$645.00	DX*403	\$945.00
2	45	460-480	25	DX*004	\$453.00	DX*104	\$513.00	DX*604	\$645.00	DX*204 ¹	\$645.00	DX*404	\$945.00
2	45	575-600	25	DX*005	\$453.00	DX*105	\$513.00	DX*605	\$645.00	DX*205 ¹	\$645.00	DX*405	\$945.00
3	90	Separate Control — 115-120V		EX*002	\$717.00	EX*102	\$837.00	EX*602	\$993.00	EX*202 ¹	\$993.00	EX*402	\$1449.00
3	90	200-208	25	EX*023	\$717.00	EX*123	\$837.00	EX*623	\$993.00	EX*223 ¹	\$993.00	EX*423	\$1449.00
3	90	230-240	30	EX*003	\$717.00	EX*103	\$837.00	EX*603	\$993.00	EX*203 ¹	\$993.00	EX*403	\$1449.00
3	90	460-480	50	EX*004	\$717.00	EX*104	\$837.00	EX*604	\$993.00	EX*204 ¹	\$993.00	EX*404	\$1449.00
3	90	575-600	50	EX*005	\$717.00	EX*105	\$837.00	EX*605	\$993.00	EX*205 ¹	\$993.00	EX*405	\$1449.00
4	135	Separate Control — 115-120V		FX*002	\$1605.00	FX*102	\$1857.00	FX*602	\$2373.00	FX*202 ¹	\$2373.00	FX*402	\$2901.00
4	135	200-208	40	FX*023	\$1605.00	FX*123	\$1857.00	FX*623	\$2373.00	FX*223 ¹	\$2373.00	FX*423	\$2901.00
4	135	230-240	50	FX*003	\$1605.00	FX*103	\$1857.00	FX*603	\$2373.00	FX*203 ¹	\$2373.00	FX*403	\$2901.00
4	135	460-480	100	FX*004	\$1605.00	FX*104	\$1857.00	FX*604	\$2373.00	FX*204 ¹	\$2373.00	FX*404	\$2901.00
4	135	575-600	100	FX*005	\$1605.00	FX*105	\$1857.00	FX*605	\$2373.00	FX*205 ¹	\$2373.00	FX*405	\$2901.00
5	270	Separate Control — 115-120V		GX*002	\$3882.00	GX*102	\$4344.00	GX*602	\$5664.00	GX*202 ¹	\$5664.00	GX*402	\$5664.00
5	270	200-208	75	GX*023	\$3882.00	GX*123	\$4344.00	GX*623	\$5664.00	GX*223 ¹	\$5664.00	GX*423	\$5664.00
5	270	230-240	100	GX*003	\$3882.00	GX*103	\$4344.00	GX*603	\$5664.00	GX*203 ¹	\$5664.00	GX*403	\$5664.00
5	270	460-480	200	GX*004	\$3882.00	GX*104	\$4344.00	GX*604	\$5664.00	GX*204 ¹	\$5664.00	GX*404	\$5664.00
5	270	575-600	200	GX*005	\$3882.00	GX*105	\$4344.00	GX*605	\$5664.00	GX*205 ¹	\$5664.00	GX*405	\$5664.00
6	540	Separate Control — 115-120V		HX*002	\$9192.00	HX*102	\$12192.00	HX*602	\$13812.00	HX*202 ¹	\$13812.00	HX*402	\$15192.00
6	540	200-208	150	HX*023	\$9192.00	HX*123	\$12192.00	HX*623	\$13812.00	HX*223 ¹	\$13812.00	HX*423	\$15192.00
6	540	230-240	200	HX*003	\$9192.00	HX*103	\$12192.00	HX*603	\$13812.00	HX*203 ¹	\$13812.00	HX*403	\$15192.00
6	540	460-480	400	HX*004	\$9192.00	HX*104	\$12192.00	HX*604	\$13812.00	HX*204 ¹	\$13812.00	HX*404	\$15192.00
6	540	575-600	400	HX*005	\$9192.00	HX*105	\$12192.00	HX*605	\$13812.00	HX*205 ¹	\$13812.00	HX*405	\$15192.00

¹Motor full load current should not exceed continuous ampere rating of the starter.

²External reset not included on standard listed forms.

Full Load Current Selection Table

For continuous rated motors, with a service factor of 1.15 to 1.25, select the heater with maximum motor Amperes equal to or immediately greater than the motor full-load current (provides a maximum of 125 percent protection). For continuous rated motors with no service factor, multiply the full-load current of the motor by 0.90 and use this value to select the heater.

Overload Range for Solid State Starters	NEMA Size	Fuse Max.	Breaker Max.	Insert Digit in Product Number
0.4-0.85	00-1	3	15	C
0.8-1.7	00-1	6	15	D
1.6-3.4	00-1	12	15	E
3.2-6.8	00-1	25	25	F
6.5-13.5	00-1	50	50	G
13-27	00-1	100	100	H
6.5-13.5	2	50	50	G
13-27	2	100	100	H
25-50	2	200	200	J
17-35	3 & 4	125	125	K
35-70	3 & 4	250	250	L
65-135	3 & 4	500	400	M
35-70	5			N
65-135	5	500	400	P
130-270	5	600	800	Q
130-270	6	1200	800	S
260-540	6	1200	800	T



Other Coil Voltages: See page 1-8
 Factory Installed Modifications: See pages 1-126 to 1-133
 Field Installed Modifications: See pages 1-134 to 1-140

NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR306, CR386 Magnetic Starters

Section 1

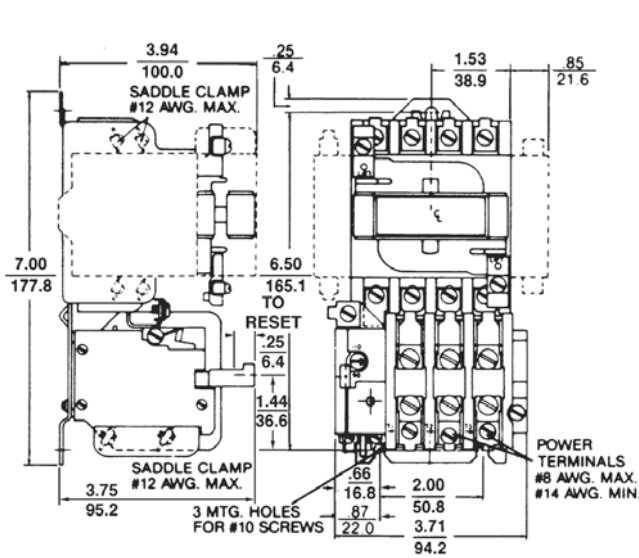
Nonreversing, Non-combination

200 Horsepower Maximum

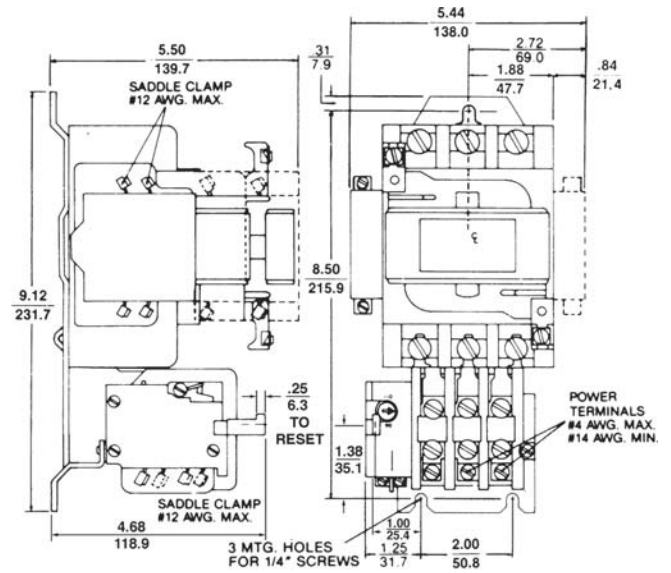
NEMA Sizes 00-5

600 Volts Maximum

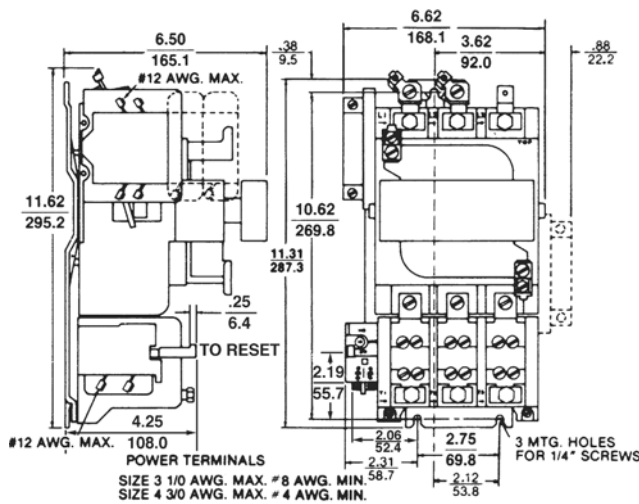
Outlines, Dimensions ($\frac{in}{mm}$) and Weights (For Estimating Only)



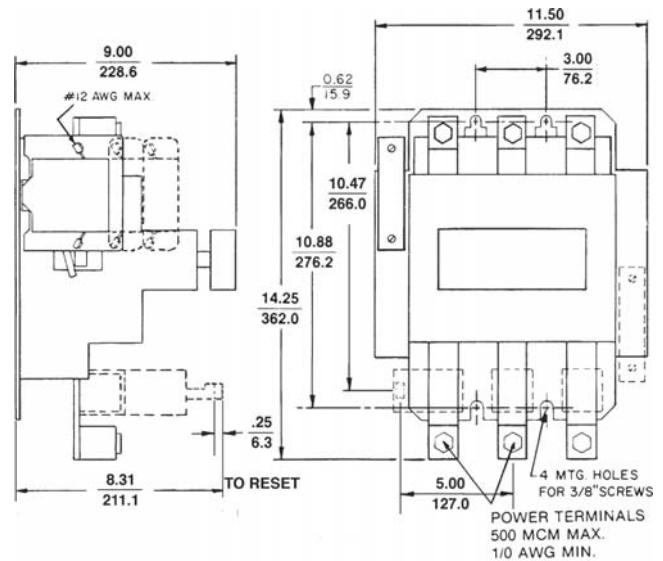
Open Type, NEMA Sizes 00-1 (3 3/4 lbs.)



Open Type, NEMA Size 2 (8 lbs.)



Open Type, NEMA Sizes 3 (19 lbs.) and 4 (20 lbs.)



Open Type, NEMA Size 5 (55 lbs.)



Enclosure Descriptions: See Section 13
Product Number Selection Instructions: See page 1-10

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Section 1

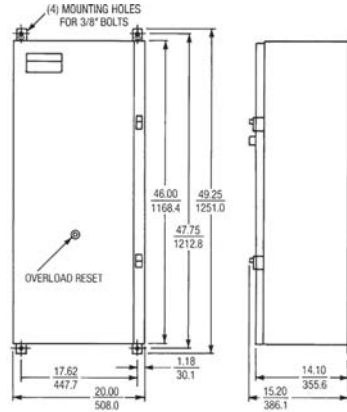
Nonreversing, Non-combination

200 Horsepower Maximum

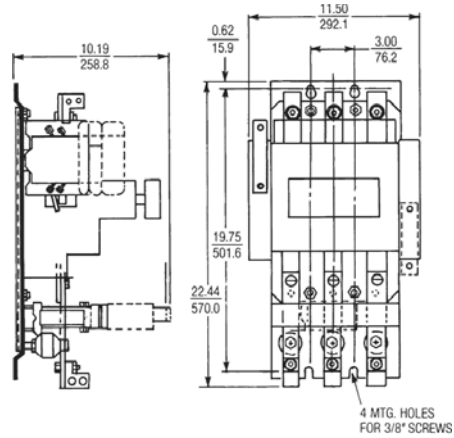
NEMA Sizes 00-5

600 Volts Maximum

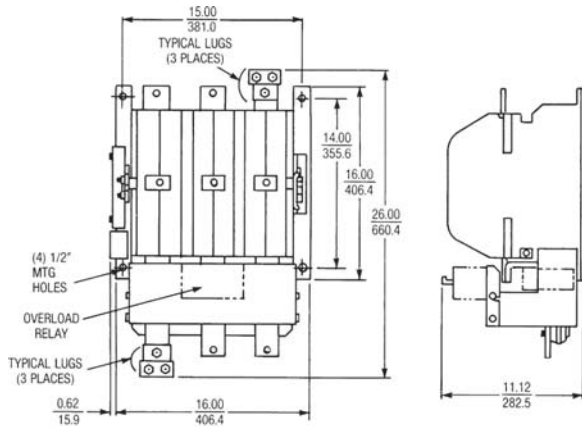
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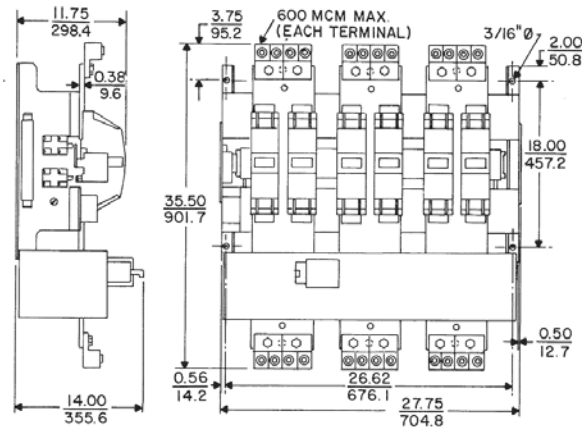
CR306 NEMA Type 1 and 12, Size 6



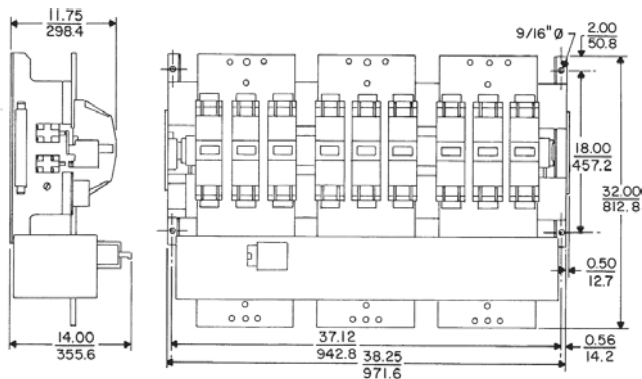
CR306 Open Type, NEMA Size 6



CR386 Open Type, NEMA Size 7, 115 lbs.



CR386 Open Type, NEMA Size 8



CR386 Open Type, NEMA Size 9



Product Number Selection Instructions: See page 1-10

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CR306, CR386 Magnetic Starters

Section 1

Nonreversing, Non-combination

200 Horsepower Maximum

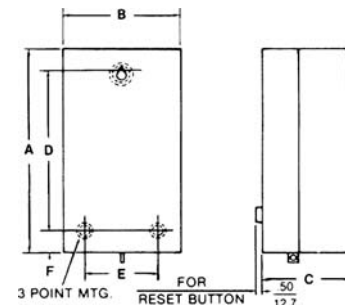
NEMA Sizes 00-5

600 Volts Maximum

Outlines, Dimensions in. (mm) and Weights (For Estimating Only)

CR306 NEMA Type 1 NEMA Sizes 00-4

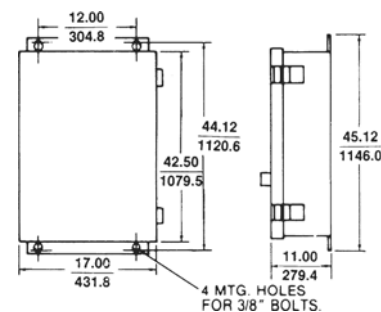
NEMA Size	Dimension A	Dimension B	Dimension C	Dimension D	Dimension E	Dimension F	Mounting Screw Size	Shipping Weight (lbs)
00, 0, 1	10.00 (254.0)	6.00 (152.4)	4.63 (117.6)	8.00 (203.2)	4.00 (101.6)	1.00 (25.4)	#10	5 1/2
2	13.25 (336.6)	7.38 (187.4)	6.13 (155.6)	11.00 (279.4)	5.00 (127.0)	1.13 (28.7)	1/4"	13
3	20.25 (514.4)	8.75 (222.2)	7.31 (185.7)	17.00 (431.8)	5.75 (146.0)	1.88 (47.6)	1/4"	35
4	25.00 (635.0)	8.75 (222.2)	7.31 (185.7)	22.00 (558.8)	5.75 (146.0)	1.50 (38.1)	1/4"	38



NEMA Type 1, Sizes 00-4

CR306 NEMA Type 1 NEMA Size 5

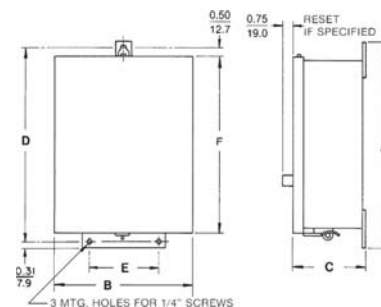
See Diagram For Dimensions



NEMA Type 1, Size 5 (134 lbs.)

CR306 NEMA Type 12 NEMA Sizes 0-2

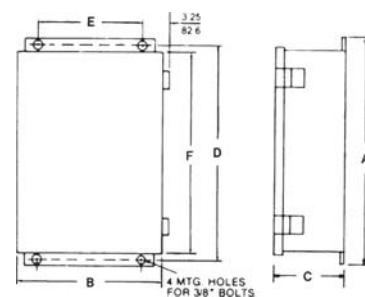
NEMA Size	Dimension A	Dimension B	Dimension C	Dimension D	Dimension E	Dimension F	Shipping Weight (lbs)
0, 1	11.63 (295.4)	6.25 (158.8)	4.75 (120.6)	11.00 (279.4)	3.00 (76.2)	10.25 (260.4)	9 1/2
2	14.63 (371.6)	7.63 (193.8)	6.25 (158.8)	14.00 (355.6)	4.38 (111.2)	13.25 (366.6)	15



NEMA Type 12, Sizes 0-2

CR306 NEMA Type 12 NEMA Sizes 3-5

NEMA Size	Dimension A	Dimension B	Dimension C	Dimension D	Dimension E	Dimension F	Shipping Weight (lbs)
3	24.00 (609.6)	10.50 (266.7)	7.25 (184.2)	23.00 (584.2)	5.75 (146.1)	21.25 (539.8)	43
4	30.00 (762.0)	10.50 (266.7)	7.25 (184.2)	29.00 (736.6)	5.75 (146.1)	27.25 (692.2)	48
5	45.50 (1155.7)	17.00 (431.8)	10.25 (260.4)	44.50 (1130.3)	12.00 (304.8)	42.75 (1085.9)	154



NEMA Type 12, Sizes 3-5



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200 Horsepower Maximum

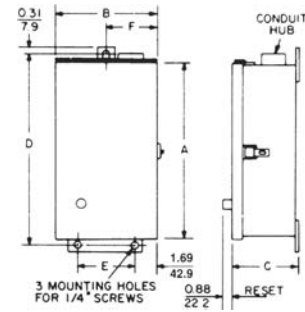
NEMA Sizes 00-5

600 Volts Maximum

Outlines, Dimensions in. (mm) and Weights (For Estimating Only)

CR306 NEMA Type 3R NEMA Sizes 00-2

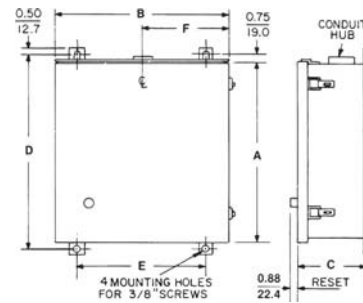
NEMA Size	Dimension A	Dimension B	Dimension C	Dimension D	Dimension E	Dimension F	Shipping Weight (lbs)
0, 1	14.50 (368.3)	6.38 (162.1)	4.75 (120.6)	15.00 (381.0)	3.00 (76.2)	3.19 (81.0)	9 1/2
2	16.50 (419.1)	7.75 (196.8)	6.50 (165.1)	17.00 (431.8)	4.38 (111.2)	3.88 (98.6)	15



NEMA Type 3R, Sizes 00-2

CR306 NEMA Type 3R NEMA Sizes 3-5

NEMA Size	Dimension A	Dimension B	Dimension C	Dimension D	Dimension E	Dimension F	Shipping Weight (lbs)
3	22.00 (558.8)	17.19 (436.6)	7.25 (184.2)	23.50 (596.9)	11.00 (279.4)	8.6 (217.9)	43
4	26.00 (660.4)	17.19 (436.6)	7.25 (184.2)	27.50 (698.5)	11.00 (279.4)	8.6 (217.9)	48
5	42.00 (1066.8)	22.00 (558.8)	10.25 (260.4)	43.50 (1104.9)	16.00 (406.0)	11.0 (279.4)	157



NEMA Type 3R, Sizes 3-5

CR306 NEMA Type 4/4X NEMA Sizes 0-5

NEMA Size	Height	Width	Depth	Shipping Weight (lbs)
0, 1	15.62 (396.7)	6.38 (162.0)	4.75 (120.6)	16
2	17.62 (447.5)	7.75 (196.8)	6.50 (165.1)	20
3	24.50 (622.3)	17.00 (431.8)	7.25 (184.2)	125
4	28.50 (723.9)	17.00 (431.8)	7.25 (184.2)	132
5	44.50 (1130.3)	22.00 (558.8)	10.25 (260.4)	135

